a.) Amendments to the Claims

Claim 1 (Cancelled).

2. (Previously Presented) An isolated polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 1.

Claim 3 (Cancelled).

Claim 4 (Cancelled)

5. (Previously Presented) An isolated DNA selected from the group consisting of:

(a) DNA coding for the polypeptide described in claims 2, 48 or 49,

(b) DNA comprising the nucleotide sequence of 402 to 1331 in the nucleotide sequence represented by SEQ ID NO: 2, and

(c) DNA comprising the nucleotide sequence of 492 to 1331 in the nucleotide sequence represented by SEQ ID NO: 2.

6. (Original) A recombinant DNA prepared by integrating the DNA described in claim 5 into a vector.

7. (Original) A recombinant DNA according to claim 6 which is plasmid pAMo-3GT5 or plasmid pBS-3GT5 (FERM BP-6645).

8. (Previously Presented) A transformant harboring the DNA described in claim 5.

9. (Previously Presented) A transformant according to claim 8 wherein the host is selected from the group consisting of a microorganism, an animal cell, a plant cell, an insect cell, a non-human transgenic animal and a transgenic plant.

10. (Previously Presented) A transformant according to claim 9 wherein the host is a microorganism belonging to the genus *Escherichia.*

11. (Previously Presented) A transformant according to claim 9 wherein the host is an animal cell selected from the group consisting of a mouse myeloma cell, a rat myeloma cell, a mouse hybridoma cell, a CHO cell, a BHK cell, an African green monkey kidney cell, a Namalwa cell, a Namalwa KJM-1 cell, a human embryonic kidney cell and a human leukemia cell.

12. (Previously Presented) A transformant according to claim 9 wherein the host is an insect cell selected from the group consisting of a *Spodoptera frugiperda* ovarian cell, a *Trichoplusia ni* ovarian cell and a silkworm ovarian cell.

13. (Previously Presented) A process for producing a polypeptide, which comprises culturing a transformant harboring a recombinant DNA prepared by integrating DNA coding for the polypeptide of any one of claims 2, 48 or 49 into a vector in a medium to thereby form and accumulate said polypeptide in culture, and collecting said polypeptide from said culture.

14. (Previously Presented) A process for producing a polypeptide, which comprises breeding a non-human transgenic animal harboring a recombinant DNA prepared by integrating DNA coding for the polypeptide of any one of claims 2, 48 or 49 into a vector to thereby form and accumulate said polypeptide in said animal, and collecting said polypeptide from said animal.

15. (Original) A process according to claim 14 wherein formation and accumulation occur in animal milk.

16. (Previously Presented) A process for producing a polypeptide, which comprises culturing a transgenic plant harboring a recombinant DNA prepared by integrating DNA coding for the polypeptide of any one of claims 2, 48 or 49 into a vector to thereby form and accumulate said polypeptide in said plant, and collecting said polypeptide from said plant.

17. (Currently Amended) A process for ~~producing polypeptide~~ producing a

polypeptide, which comprises synthesizing the polypeptide of any one of claims 2, 48 or 49 in an *in vitro* transcription-translation system using DNA coding for said polypeptide.

18. (Currently Amended) A process for producing a reaction product having galactose, which ~~comprises~~ comprises:

selecting a polypeptide according to any one of claims 2, 48 or 49 as an enzyme source;

providing (a) said enzyme source, (b) an acceptor substrate selected from the group consisting of: I) N-acetylglucosamine (GlcNAc), ii) an oligosaccharide having N-acetylglucosamine residue at the non-reducing terminus thereof, and iii) a complex carbohydrate having N-acetylglucosamine residue at the non-reducing terminus thereof, and (c) uridine-5'-diphosphate galactose in an aqueous medium to thereby form and accumulate said reaction product in the aqueous medium, wherein the galactose is transferred via β1,3-linkage to N-acetylglucosamine or N-acetylglucosamine residue of said acceptor substrate; and

collecting said reaction product from said aqueous medium.

19. (Currently Amended) A process for producing a reaction product having galactose, which ~~comprises~~ comprises:

selecting a polypeptide according to any of claims 2, 48 or 49 as an enzyme source;

providing (a) said enzyme source, (b) an acceptor substrate selected

from the group consisting of: I) glucose, ii) an oligosaccharide having glucose residue at the non-reducing terminus thereof, and iii) a complex carbohydrate having glucose residue at the non-reducing terminus thereof, and (c) uridine-5'-diphosphate galactose in an aqueous medium to thereby form and accumulate said reaction product in the aqueous medium, wherein the galactose is transferred via β1,3-linkage to glucose or glucose residue of said acceptor substrate; and

collecting said reaction product from said aqueous medium.

20. (Previously Presented) A process for producing a sugar chain or a complex carbohydrate, which comprises culturing a transformant of claim 9 in a medium to thereby form and accumulate a sugar chain having galactose transferred via β 1,3-linkage to N-acetylglucosamine, N-acetylglucosamine residue, glucose or glucose residue thereof or a complex carbohydrate containing said sugar chain in the culture, and collecting said sugar chain or said complex carbohydrate from said culture.

21. (Original) A process for producing a sugar chain or a complex carbohydrate, which comprises breeding the non-human transgenic animal of claim 9 to thereby form and accumulate in said animal a sugar chain having galactose transferred via β1,3-linkage to N-acetylglucosamine, N-acetylglucosamine residue, glucose or glucose residue thereof or a complex carbohydrate containing said sugar chain, and collecting said sugar chain or said complex carbohydrate from said animal.

22. (Original) A process for producing a sugar chain or a complex carbohydrate, which comprises culturing the transgenic plant of claim 9 to thereby form and accumulate in said plant a sugar chain having galactose transferred via β1,3-linkage to N-acetylglucosamine, N-acetylglucosamine residue, glucose or glucose residue thereof or a complex carbohydrate containing said sugar chain, and collecting said sugar chain or said complex carbohydrate from said plant.

23. (Previously Presented) A process according to claim 18 wherein the complex carbohydrate is a complex carbohydrate selected from the group consisting of a glycoprotein, a glycolipid, a proteoglycan, a glycopeptide, a lipopolysaccharide, a peptidoglycan and a glycoside which is a steroid compound with a sugar chain.

24. (Original) A process according to claim 21 wherein formation and accumulation occur in animal milk.

25. (Previously Presented) A method for determining the expression level of a gene encoding a polypeptide, which comprises hybridization using DNA according to claim 5.

Claims 26-28 (Cancelled)

29. (Previously Presented) A method for determining the expression level

of DNA according to claim 5, which comprises conducting polymerase chain reaction using an oligonucleotide comprising a consecutive 5 to 60 nucleotide sequence of said DNA or DNA complementary thereto.

30. (Previously Presented) A method for detecting cancers or cancer metastasis, which comprises conducting the method of claim 29 and correlating the expression level to that obtained with cancer or cancer metastasis.

31. (Currently Amended) A method for inhibiting transcription of DNA according to claim 5 or translation of its corresponding mRNA, which comprises blocking expression or translation using an oligonucleotide comprising a consecutive ~~5 to 60 a nucleotide~~ 5 to 60 nucleotide sequence of said DNA or DNA complementary thereto.

Claim 32 (Cancelled).

33. (Currently Amended) A method for immunological detection of a polypeptide according to claims 2, 48 or 49, which comprises applying an antibody thereto and ~~detecting~~ determining an antigen-antibody reaction ~~for detecting said polypeptide~~.

Claims 34-37 (Cancelled)

38. (Previously Presented) A method for screening a compound, which

comprises contacting a transformant according to claim 9 which expresses said isolated DNA with a test sample and determining the amount of protein expressed.

Claims 39-47 (Cancelled)

48. (Previously Presented) An isolated polypeptide comprising the sequence of amino acids 31 to 310 in the amino acid sequence represented by SEQ ID NO:1.

49. (Previously Presented) An isolated polypeptide comprising the amino acid sequence represented by SEQ ID NO:1.

Claim 50 (Cancelled)

51. (Currently Amended) An isolated DNA that hybridizes ~~under stringent conducting~~ under stringent conditions with the DNA of claim 5 and codes for a polypeptide having β1,3-galactosyltransferase activity capable of synthesizing Gal β1-3GlcNAc structure.

52. (Previously Presented) The DNA of claim 51, wherein the stringent conditions comprise hybridizing the DNA at 65°C in the presence of 0.7 to 1.0 mol/L NaCl using the filter on which a DNA prepared from colonies or plaques is immobilized and

then washing the filter at 65° using 0.1 to 2-fold concentration of saline-sodium citrate solution.

53. (Previously Presented) A process according to claim 19 wherein the complex carbohydrate is a complex carbohydrate selected from the group consisting of a glycoprotein, a glycolipid, a proteoglycan, a glycopeptide, a lipopolysaccharide, a peptidoglycan and a glycoside which is a steroid compound with a sugar chain.

54. (Previously Presented) A process according to claim 20 wherein the complex carbohydrate is a complex carbohydrate selected from the group consisting of a glycoprotein, a glycolipid, a proteoglycan, a glycopeptide, a lipopolysaccharide, a peptidoglycan and a glycoside which is a steroid compound with a sugar chain.